

## ABSTRACT

A method and an arrangement for maintaining end-to-end synchronization on a telecommunications connection transmitting data in frames substantially in real time and using synchronized end-to-end encryption, wherein at least a part of the telecommunications connection is a packet-switched connection (PDN), in which case the reproduction delay of the data to be transmitted can be increased by adding one or more extra frames (72) to the frame string (75) being transmitted, wherein the arrangement comprises means (MS, TE) for defining on the basis of the number of received frames an initialization vector value corresponding to a frame received at the receiving end of the telecommunications connection and used in decrypting the frame, and means (GW, TE) for adjusting the reproduction delay that are arranged to mark the frame to be added to increase the reproduction delay as an extra frame, and the means (MS, TE) for defining the initialization vector value are arranged to count only the frames not marked as extra frames in the number of received frames.

(Figure 1)